

Commonwealth of Massachusetts  
Department of Telecommunications and Energy  
Fitchburg Gas and Electric Light Company d/b/a Unitil  
Docket No: D.T.E. 05-64  
Department's Fourth Set of Information Requests

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**Request No. DTE 4-1**

Refer to the Company's response to DTE-1 (a).

- (a) Please provide a breakdown of FAS 87 pension expense (income) for the two operating utilities and for the Service Company for the years 1999 through 2004;
- (b) If, in any year, the Service Company's pension results differ from the utility data (e.g. the Service Company had pension expense, while the operating utilities have operating income or vice versa), please direct the Company's actuaries to provide the Department with a detailed explanation of the reasons for the difference;
- (c) With respect to the Service Company, please provide copies of published reports which show the Service Company's pension liability balances for the years 1999 through 2004.

**Response:**

- (a) A breakdown of FAS 87 pension expense (income) for the two operating utilities, Fitchburg Gas and Electric Light Company ("FG&E") and Unitil Energy Systems, Inc. ("UES") and for the Service Company ("USC") for the years 1999 through 2004 is attached as Exhibit DTE 4-1(a).
- (b) As shown on Exhibit DTE 4-1(a), the Net Periodic Pension Cost ("NPPC") calculations have resulted in pension expense for USC in each of the years presented. USC's results differ from the NPPC calculations for Unitil's two operating utilities, FG&E and UES, in the years 1999 through 2002 where one or both of FG&E and/or UES have NPPC calculations which resulted in pension income rather than pension expense. *The Company's actuaries have provided an additional explanation of the reasons for these differences in the attached Exhibit DTE 4-1(b).* A key determinant of each entity's NPPC calculation is the census data (population) of active and inactive employees eligible to receive pension benefits. As discussed in the response to DTE 3-1(d), USC's payroll has grown from 14 employees in 1984 to over 160 employees currently. The payrolls of the utility operating companies have decreased proportionately over the same horizon. In addition, the pay rates and the demographic make up of each employee population are significant variables from which

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the Service Cost component of the NPPC is derived each period. As can be noted in a comparison of the components of each entity's NPPC on Exhibit DTE 4-1(a), the Service Cost component for USC is consistently and disproportionately higher than the Service Cost component of NPPC for FG&E and UES and this is the direct result of the number of employees, their pay rates and demographics in each entity's payroll census data. This relationship of Service Cost in each entity's NPPC is the reason why one entity, e.g. USC, could have pension expense in a given year while other entities, e.g. FG&E and/or UES, could have pension income.

- (c) Copies of Unitil Service Corp.'s Securities and Exchange Commission Form U-13-60 are attached as Exhibit DTE 4-1(c) and USC's pension liabilities for 1999 through 2004 are shown on pages 19, 56, 84, 112, 144, and 182 of 202.

**Person Responsible:** Laurence M. Brock

**Date:** November 17, 2005

**Unitil Corporation**  
**Consolidating Net Periodic Pension Cost ("NPPC")**  
**1999 - 2005**

*Source: Actuary Reports*

	UES <sup>(1)</sup>	FG&E <sup>(1)</sup>	USC <sup>(1)</sup>	Total
<b>1999</b>				
Service Cost	\$ 249,958	\$ 282,575	\$ 402,820	\$ 935,353
Interest Cost	1,033,013	952,758	408,791	2,394,562
Expected Return on Plan Assets	(2,150,931)	(1,446,419)	(447,093)	(4,044,443)
Amortizations	(157,077)	263,602	79,938	186,463
Actuarial (Gain) / Loss	-	-	-	-
Net Periodic Pension Cost (Income)	<u>\$ (1,025,037)</u>	<u>\$ 52,516</u>	<u>\$ 444,456</u>	<u>\$ (528,065)</u>
<b>2000</b>				
Service Cost	\$ 202,104	\$ 222,227	\$ 425,255	\$ 849,586
Interest Cost	1,028,825	973,306	549,380	2,551,511
Expected Return on Plan Assets	(1,763,190)	(1,662,486)	(930,067)	(4,355,743)
Amortizations	(160,525)	263,957	79,938	183,370
Actuarial (Gain) / Loss	55,776	(70,189)	(90,658)	(105,071)
Net Periodic Pension Cost (Income)	<u>\$ (637,010)</u>	<u>\$ (273,185)</u>	<u>\$ 33,848</u>	<u>\$ (876,347)</u>
<b>2001</b>				
Service Cost	\$ 213,567	\$ 225,278	\$ 475,175	\$ 914,020
Interest Cost	1,073,410	963,571	602,149	2,639,130
Expected Return on Plan Assets	(1,807,556)	(1,624,892)	(1,006,139)	(4,438,587)
Amortizations	(159,990)	260,896	78,516	179,422
Actuarial (Gain) / Loss	24,556	(10,820)	(24,132)	(10,396)
Net Periodic Pension Cost (Income)	<u>\$ (656,013)</u>	<u>\$ (185,967)</u>	<u>\$ 125,569</u>	<u>\$ (716,411)</u>
<b>2002</b>				
Service Cost	\$ 248,713	\$ 263,328	\$ 604,119	\$ 1,116,160
Interest Cost	1,103,584	981,211	711,899	2,796,694
Expected Return on Plan Assets	(1,650,715)	(1,468,789)	(1,061,155)	(4,180,659)
Amortizations	(15,485)	101,232	15,586	101,333
Actuarial (Gain) / Loss	-	-	-	-
Net Periodic Pension Cost (Income)	<u>\$ (313,903)</u>	<u>\$ (123,018)</u>	<u>\$ 270,449</u>	<u>\$ (166,472)</u>
<b>2003</b>				
Service Cost	\$ 275,719	\$ 303,564	\$ 571,421	\$ 1,150,704
Interest Cost	1,139,292	999,688	801,334	2,940,314
Expected Return on Plan Assets	(1,384,169)	(1,214,424)	(974,119)	(3,572,712)
Amortizations	(15,485)	101,232	15,586	101,333
Actuarial (Gain) / Loss	310,907	154,548	21,733	487,188
Net Periodic Pension Cost (Income)	<u>\$ 326,264</u>	<u>\$ 344,608</u>	<u>\$ 435,955</u>	<u>\$ 1,106,827</u>
<b>2004</b>				
Service Cost	\$ 269,820	\$ 303,201	\$ 728,785	\$ 1,301,806
Interest Cost	1,116,142	997,668	914,554	3,028,364
Expected Return on Plan Assets	(1,270,095)	(1,118,588)	(1,003,850)	(3,392,533)
Amortizations	(15,485)	101,232	15,586	101,333
Actuarial (Gain) / Loss	581,956	295,888	64,853	942,697
Net Periodic Pension Cost (Income)	<u>\$ 682,338</u>	<u>\$ 579,401</u>	<u>\$ 719,928</u>	<u>\$ 1,981,667</u>

<sup>(1)</sup> Unitil Energy Systems, Inc. ("UES"), Fitchburg Gas and Electric Light Company ("FG&E"), Unitil Service Corp. ("USC")



## DIVERSIFIED INVESTMENT ADVISORS, INC.

*Partners in Retirement Solutions*

November 17, 2005

Personal and Confidential

*Via Federal Express*

Actuarial Consulting Group

Mr. Laurence M. Brock  
Vice President and Controller  
Unitil Service Corp.  
Six Liberty Lane West  
Hampton, NH 03842-1720

Atlanta

Baltimore

Boston

Cedar Rapids

Charlotte

Chicago

Cincinnati

Dallas

Detroit

Houston

Little Rock

Los Angeles

Milwaukee

New Orleans

New York

Philadelphia

Portland

San Francisco

Dear Larry:

Based on our discussion and per your request, we are providing in this letter a description of the derivation of annual FAS 87 Pension Cost as it relates to the Unitil Companies. Also, we have been asked by you to point out the reasons why there may be differences, pension expense or pension income, among the Unitil Companies which participate in the Unitil Corporation Retirement Plan.

The annual Net Periodic Pension Cost (NPPC) or pension expense is developed based on an annual actuarial valuation. In the valuation, liabilities are determined separately for each business unit (UES, FG&E, USC) based on updated census data received from Unitil. These separate liability calculations are used to determine the NPPC for the year. Therefore, it is possible for one business unit to have a positive NPPC (i.e., expense) while another business unit has a negative NPPC (i.e., income) because of the separate liability calculations made for each individual unit.

Three of the key elements that go into the determination of the NPPC are as follows:

1. Service Cost: the cost to provide one year's additional benefit accrual, including the effect of expected future salary increases. This is determined separately for each business unit.
2. Interest Cost: interest on the Projected Benefit Obligation (PBO) for one year, reflecting the decrease in the discount period during the year. This is determined separately for each business unit. The PBO includes liabilities for all plan participants, including active and inactive participants, such as retirees.



Mr. Laurence M. Brock  
November 17, 2005  
Page Two

3. Expected Return on Assets: the expected return on assets during the year. Plan assets are allocated to each business unit based on the PBO for that business unit as of the valuation date. The expected return is then determined based on this allocation of assets.

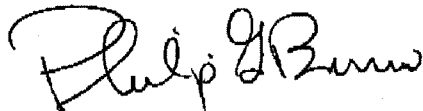
Because Interest Cost is based on the PBO and assets are allocated in relation to the PBO, these two elements move in relatively the same direction, as can be seen on the summary of the NPPCs from 1999 - 2005. It is the Service Cost element that produces the more pronounced differences between the individual business unit NPPCs.

USC is a newer business unit and has experienced more growth in active participants relative to UES and FG&E. Not only has the number of active participants in USC grown, but the compensation base of the USC employees is larger than the other business units. USC's Service Cost was \$402,820 in 1999 and is \$847,788 for 2005. By comparison, FG&E's Service Cost in the same period has only grown from \$282,575 in 1999 to \$313,706 in 2005.

As a result of this growth in the number of employees and the demographics of the covered employees, USC has recorded a pension expense for all years from 1999 - 2005 whereas the FG&E unit had three years (2000 - 2002) in this period when the NPPC was negative (pension income).

We will be glad to answer any questions or provide additional information which you may need.

Very truly yours,



Philip G. Bruno, M.A.A.A., E.A.  
Vice President, Senior Consulting Actuary



Colin B. Cassidy, A.S.A., E.A., M.A.A.A.  
Consulting Actuary

Form U-13-60

# **ANNUAL REPORT**

FOR THE PERIOD

Beginning January 1, 1999 and Ending December 31, 1999

TO THE

**US SECURITIES AND EXCHANGE COMMISSION**

OF

**UNITIL SERVICE CORP.**

A Subsidiary Service Company

Date of Incorporation October 9, 1984

State of Incorporation New Hampshire

Location of Principal Executive Offices of Reporting Company:

6 Liberty Lane West  
Hampton, NH 03842

Name, Title and address of officer to whom correspondence concerning this report should be addressed:

Anthony J. Baratta Jr., Sr. Vice President and Chief Financial Officer  
6 Liberty Lane West  
Hampton, NH 03842

Name of Principal Holding Company Whose Subsidiaries are served by Reporting Company:

UNITIL Corporation

ANNUAL REPORT OF UNITIL SERVICE CORP.  
For the Year Ended December 31, 2004

**SIGNATURE CLAUSE**

Pursuant to the requirements of the Public Utility Holding Company Act of 1935 and the rules and regulations of the Securities and Exchange Commission issued thereunder, the undersigned company has duly caused this report to be signed on its behalf of the undersigned officer thereunto duly authorized,

**UNITIL Service Corp.**  
(Name of Reporting Company)

By: /s/ Laurence M. Brock  
Laurence M. Brock  
Vice President & Controller

Date: April 26, 2005

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Department of Telecommunications and Energy  
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**Request No. DTE 4-2**

Please provide the dollar amount of the Company's December 31, 2004 pension liability which resulted from pension expense greater than contributions to the Company's pension plan and the amount resulting from pension expense with no corresponding contributions to the plan.

**Response:**

As shown on Exhibit DTE 4-2, on a total Company basis, Unitil's Pension Plan is in a Prepaid Pension position at December 31, 2004 of \$10,990,422. Of that amount, a Prepaid Pension Asset of \$3,916,164 is attributable to Fitchburg Gas and Electric Light Company ("FG&E") and a Prepaid Pension Asset of \$8,425,381 is attributable to Unitil Energy Systems, Inc. ("UES") and a Pension Liability of (\$1,351,123) is attributable to Unitil Service Corp. ("USC").

In the case of FG&E, its Prepaid Pension Asset has increased \$565,733 during the period from December 31, 1998 to December 31, 2004. In 1999 FG&E recognized pension expense of \$52,516 and in 2000 through 2002 FG&E recognized pension income of \$582,170 with a corresponding net increase to its Prepaid Pension Asset of \$529,654 over those periods when there was net pension income and no pension contributions were required under the ERISA rules. In 2003 and 2004, FG&E recognized pension expense of \$923,921 and made pension contributions of \$960,000 with a corresponding net increase to its Prepaid Pension Asset of \$36,079 over those periods when there were pension contributions greater than net pension expense.

In the case of UES, its Prepaid Pension Asset has increased \$2,666,624 during the period from December 31, 1998 to December 31, 2004. In 1999 through 2002 UES recognized pension income of \$2,631,963 with a corresponding net increase to its Prepaid Pension Asset of \$2,631,963 over those periods when there was net pension income and no pension contributions were required under the ERISA rules. In 2003 and 2004, UES recognized pension expense of \$1,008,339 and made pension contributions of \$1,043,000 with a corresponding net increase to its Prepaid Pension Asset of \$34,661 over those periods when there were pension contributions greater than net pension expense.

In the case of USC, its Pension Liability has increased \$833,180 during the period from December 31, 1998 to December 31, 2004. In 1999 through 2002 USC recognized pension expense of \$874,322 with a corresponding net increase



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to its Pension Liability of \$874,322 over those periods when there was net pension expense and no pension contributions were required under the ERISA rules. In 2003 and 2004, USC recognized pension expense of \$1,155,858 and made pension contributions of \$1,197,000 with a corresponding net decrease to its Pension Liability of \$41,142 over those periods when there were pension contributions greater than net pension expense.

**Person Responsible:** Laurence M. Brock

**Date:** November 17, 2005

**Unitil Corporation**  
**Pension Asset (Liability) Rollforward**  
**1999 - 2004**

		Pension Assets (Liabilities)			
		UES <sup>(1)</sup>	FG&E <sup>(1)</sup>	USC <sup>(1)</sup>	Total
<b>Balance 12/31/98</b>		\$ 5,758,757	\$ 3,350,431	\$ (517,943) <sup>(2)</sup>	\$ 8,591,245
	Income	1,025,037	-	-	1,025,037
	Expense	-	52,516	444,456	496,972
	Contribution	-	-	-	-
<b>Balance 12/31/99</b>		<b>6,783,794</b>	<b>3,297,915</b>	<b>(962,399) <sup>(2)</sup></b>	<b>9,119,310</b>
	Income	637,010	273,185	-	910,195
	Expense	-	-	33,848	33,848
	Contribution	-	-	-	-
<b>Balance 12/31/00</b>		<b>7,420,804</b>	<b>3,571,100</b>	<b>(996,247) <sup>(3)</sup></b>	<b>9,995,657</b>
	Income	656,013	185,967	-	841,980
	Expense	-	-	125,569	125,569
	Contribution	-	-	-	-
<b>Balance 12/31/01</b>		<b>8,076,817</b>	<b>3,757,067</b>	<b>(1,121,816) <sup>(4)</sup></b>	<b>10,712,068</b>
	Income	313,903	123,018	-	436,921
	Expense	-	-	270,449	270,449
	Contribution	-	-	-	-
<b>Balance 12/31/02</b>		<b>8,390,720</b>	<b>3,880,085</b>	<b>(1,392,265) <sup>(5)</sup></b>	<b>10,878,540</b>
	Income	-	-	-	-
	Expense <sup>(8)</sup>	326,001	344,520	435,930	1,106,451
	Contribution	355,000	375,000	470,000	1,200,000
<b>Balance 12/31/03</b>		<b>8,419,719</b>	<b>3,910,565</b>	<b>(1,358,195) <sup>(6)</sup></b>	<b>10,972,089</b>
	Income	-	-	-	-
	Expense	682,338	579,401	719,928	1,981,667
	Contribution	688,000	585,000	727,000	2,000,000
<b>Balance 12/31/04</b>		<b>\$ 8,425,381</b>	<b>\$ 3,916,164</b>	<b>\$ (1,351,123) <sup>(7)</sup></b>	<b>\$ 10,990,422</b>

		Cumulative 12/31/98 to 12/31/04			
<b>Balance 12/31/98</b>		\$ 5,758,757	\$ 3,350,431	\$ (517,943)	\$ 8,591,245
	Income	2,631,963	582,170	-	3,214,133
	Expense	1,008,339	976,437	2,030,180	4,014,956
	Contribution	1,043,000	960,000	1,197,000	3,200,000
<b>Balance 12/31/04</b>		<b>\$ 8,425,381</b>	<b>\$ 3,916,164</b>	<b>\$ (1,351,123)</b>	<b>\$ 10,990,422</b>
	<b>Net change</b>	<b>\$ 2,666,624</b>	<b>\$ 565,733</b>	<b>\$ (833,180)</b>	<b>\$ 2,399,177</b>

<sup>(1)</sup> Unitil Energy Systems, Inc. ("UES"), Fitchburg Gas and Electric Light Company ("FG&E"), Unitil Service Corp. ("USC")

<sup>(2)</sup> Amount reported on Form U-13-60, Exhibit DTE 4-1(c) Page 19 of 202.

<sup>(3)</sup> Amount reported on Form U-13-60, Exhibit DTE 4-1(c) Page 56 of 202 differs by \$71,850.00 due to timing of G/L posting.

<sup>(4)</sup> Amount reported on Form U-13-60, Exhibit DTE 4-1(c) Page 84 of 202 differs by \$70,459.00 due to timing of G/L posting.

<sup>(5)</sup> Amount reported on Form U-13-60, Exhibit DTE 4-1(c) Page 112 of 202 differs by \$25.00 due to timing of G/L posting.

<sup>(6)</sup> Amount reported on Form U-13-60, Exhibit DTE 4-1(c) Page 144 of 202.

<sup>(7)</sup> Amount reported on Form U-13-60, Exhibit DTE 4-1(c) Page 182 of 202.

<sup>(8)</sup> Amount per General Ledger for 2003 is \$376.00 lower, due to timing of G/L posting.